

REMARKS

In the Office Action dated February 28, 2006:

- Claims 1, 3-6, 8, 11, 15-22, 24, and 31-34 were rejected under 35 U.S.C. 102(e) for being anticipated by Smith (US 6538313);
- Claims 2, 7 and 23 were rejected under 35 U.S.C. 103(a) for being unpatentable over Smith in view of Lee (US 2004/0159918); and
- Claims 9-10, 12-14, 25-28 and 29-30 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

After the entry of this amendment, the pending claims are claims 1-36.

Claim Amendments

Applicants have amended independent claim 1 to further describe that at least one of the bottom plate and the insulator of the invented semiconductor package has at least one expansion slot. This amendment is supported in the specification. For example, the specification (on page 10, lines 12-18 in connection with Figure 2) describes that

“In order to facilitate thermal expansion, die attach pad 210 may include a plurality of expansion slots 216. The size and number of expansion slots 216 will depend on the amount of thermal expansion anticipated. Similar to die attach pad 210, insulator 206 and bottom plate 208 may also have expansion slots 216. The expansion slot configurations for any combination of die attach pad 210, insulator 206, and bottom plate 208 may also match.”

Ample support can also be found in other portions of the application (e.g., page 12, lines 26-30, and page 14, lines 19-23) and the drawings (e.g., Figures 4 and 6). The expansion slots in the bottom plate and the insulator allow molding compound to flow in and therefore strengthen the package. Claims 18 and 34 have been amended in a similar manner.

Applicants have rewritten claims 14 and 30 as new independent claims 35 and 36 by including all features recited in the original version of claim 1.

No new matter has been added.

Claim Rejections under 35 U.S.C. 102(e)

In the Office Action, the Examiner has rejected claim 1 but indicated that claims 13 and 14 would be allowable if rewritten as independent claims by including all features recited in the original version of claim 1. Claim 13 limits claim 1 by further describing that the insulator and the bottom plate have matching expansion slots; and claim 14 requires that the die attach pad has an expansion slot. As a result, it appears that the provision of an expansion slot in at least one of the underlying structures distinguishes these claims from the references applied.

Indeed, although Smith teaches many methods of adjusting the capacitor's capacitance by, e.g., "varying such factors as the distance between the plates, the choice and thickness of the dielectric material, and the size and/or configuration of the plates" (col. 3, lines 5-8), none of them suggest a single expansion slot in any of the die attach plate, the substrate, or the capacitor dielectric. This observation is further substantiated by the fact that none of the drawings (including Figures 3A-3B, 4-5, and 7A-7C) depict that any of these components has an expansion slot or the like. Rather, each of the die attach plate, the substrate and the capacitor dielectric is a blind sheet of material with no aperture therein.

Accordingly, Smith not only fails to teach or suggest that the substrate 107 and the capacitor dielectric 380 have matching expansion slots (as recited in claim 13 of the present application), but also fails to teach or suggest that either the substrate 107 or the capacitor dielectric 380 has at least one expansion slot (as recited in the amended claim 1 of the present

application). Therefore, claim 1, as amended, and its dependent claims 2-8, 11 and 15-17 are not anticipated by Smith. Dependent claims 9, 10, and 12-14 have been indicated to be patentable.

Applicants have made similar amendments to independent claims 18 and 34. Therefore, claims 18 (as well as its dependent claims 19-24 and 31-33) and 34 are not anticipated by Smith for at least the same reasons mentioned above. Dependent claims 25-30 have been indicated to be patentable.

Claim Rejections under 35 U.S.C. 103(a)

The Examiner relied upon Lee to reject claims 2, 7 and 23. Lee teaches a semiconductor package including a lead frame comprising a frame including both a ground ring and a chip mounting board located therein. But since Lee's semiconductor package does not include a bottom plate or an insulator, Lee does not suggest there is at least one expansion slot in at least one of the bottom plate or the insulator as recited in claims 1 and 18, as amended. Since independent claims 1 and 18 are patentable over Smith in view of Lee, claims 2, 7 and 23 are also patentable for at least the same reasons mentioned above.

Aside from the fee for the extension of time and the addition of the new independent claims 35 and 36, no additional fee is believed to be due for filing this response. However, if a fee is due, please charge such fee to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310.

If the Examiner believes a telephone interview would expedite prosecution of this application, she is invited to call applicant's attorney at the number given below.

Respectfully submitted,

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